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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,685	06/23/2003	Tatsuo Shimofurutani	KASA:026	7994

7590 04/07/2006

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EXAMINER

PETERSON, KENNETH E

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,685

Applicant(s)

SHIMOFURUTANI, TATSUO

Examiner

Kenneth E. Peterson

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 and 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

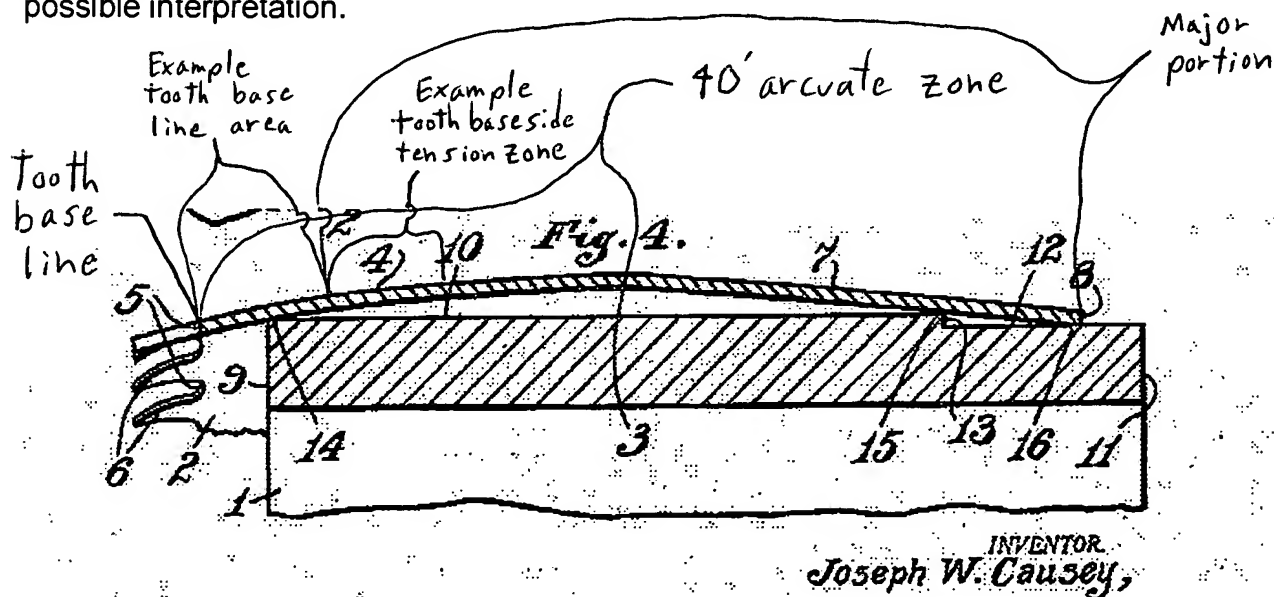
Art Unit: 3724

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Causey '468, as best seen in figure 4. Causey discloses an area between numerals 5 and 3 that is arcuate via roller tensioning, as described on lines 87-92 of column 2. Any portion spaced from the teeth but within that area could be considered to be a "tooth base side tension zone" or a "major portion". The teeth are angled relative to this "major portion", since the whole area is curved along of 40 foot radius. It is clear that this angle exists when the blade is unmounted, as seen in figure 4. Given sufficient tension between pulleys, the blade will "substantially" straighten out at its cutting span, as best described on lines 22-48 of column 3, 2nd page. See the below figure for one possible interpretation.



3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,2,3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Causey '468, who does not disclose projecting tooth tips of the recited dimension. Examiner takes Official Notice (now taken as fact) that such tips are well known on band saws. Furthermore, the width (or protrusion thickness) of the tooth tip is an old and well known results-effective variable. A wide tip will make a wide kerf, with little chance of blade binding or overheating, but on the downside, much valuable wood is turned into sawdust. A less wide tip will produce less sawdust, but there is greater chance of blade binding or overheating in the kerf since the sides of the blade are much more likely to rub against the wood in the kerf. Given that one of ordinary skill knows this results-effective variable, it would have been obvious for him to have selected almost any level of protrusion, including 0.02mm, in order to properly balance his desire to prevent binding and overheating with his desire to minimize wood wastage (sawdust).

5. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that one section of Causey is not angled relative to another section because the entire width of Causey's blade is curved. Nonetheless, figure 4

clearly shows that different sections of the blade width are angled relative to one another. Examiner notes that during the bending of sheet metal of this type, there is inherently come curvature between any angled sections. As seen by the action occurring in Applicant's figure 7, even Applicant's own saw blade bending will result in some curvature. Examiner also notes that that Applicant's bend is spaced from the tooth gullet bottoms (24) as seen in figure 7.

Currently, Applicant is not claiming that the blade width has any pre-mounting straight sections, and it appears that applicant is trying (unsuccessfully) to claim an angle between pre-mounting straight sections. However, since there are currently no pre-mounting straight sections claimed, Causey is still employable in a rejection.

The addition of a "tooth base line area" does not seem to further limit the claims, as seen in the drawing above.

Applicant's desire to have an interview is noted. Feel free to call the Examiner at any time.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 571-272-4512. The examiner can normally be reached Mon-Thurs, 7:30AM-5PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KP
March 30, 2006



KENNETH E. PETERSON
PRIMARY EXAMINER